

USSN 08/659,952
COLB-001/09US

N.C.
A teleconferencing/videoconferencing system has (1) a plurality of AV devices, each capable of originating and reproducing user related audio and video signals; (2) a plurality of communications ports, each supporting the switch connections of video in, video out, audio in, and audio out; and (3) a communication path arranged for transport of audio and video signals. The system controls communications, over the communication path, between two of the AV devices by creating first and second call handles, respectively associated with the two AV devices. Each call handle defines a call state (either active and/or hold), and the AV device's port's switch connections involved in the communications connection. The system also allows a user to remotely put another caller on hold or remotely disconnect another caller.

In the Claims

15. (Amended after Final) A teleconferencing system comprising:

- E
- (a) a plurality of AV devices, each capable of
 - (i) originating and reproducing
 - (1) user related audio and video signals;
 - (b) a plurality of communications ports, each supporting
 - (i) at least one of the group of switch connections consisting of
 - (1) video in, video out, audio in and audio out; and
 - (c) at least one communication path,
 - (i) arranged for transport
 - (1) of audio and video signals,
 - [(ii) between the AV devices,
 - (iii) by way of at least one port
 - (1) associated with each device,]

wherein the system is configured to

- (i) to control a [teleconference call] communication connection
 - (1) [being communications] between [users] two of the AV devices,
 - (2) over the communication path,
- (ii) by [generating] creating,

USSN 08/659,952
COLB-001/09US

- (1) as a result of a call request,
- (2) at least [one] a first call handle,
- i. associated with one of the two AV devices and, thereafter,
- ii. to define each connection
- i. between an AV device and its associated port,]
- (3) at least a second call handle,
- i. associated with the other AV device,
- (4) each call handle defining [the],
- i. for its respective AV device,
- ii. a call state, [between the respective device and port the
state] being at least one of the group consisting of [i. idle, ringing,] active and hold states; and
- iii. the port switch connections involved in the
communications connection]
- (iii) by establishing communications
- (1) between the devices
- (2) based on the appropriate call handles' states].

²
16. (Amended after Final) The system according to claim 15, further comprising

- (a) [a switch; and
- (b) [at least one signal processor, including
- (i) at least three communications ports

wherein the system is further configured to

- (i) control communications connections among
- (1) three or more AV devices and
- (2) one of the signal processors

USSN 08/659,952
COLB-001/09US

- (ii) by generating a plurality of call handles [to define]
 - (1) [a connection
 - i. from] one associated with each of the three or more AV devices [in the teleconference call
 - ii. to the switch] and
 - (2) one associated with each of the three or more ports on the signal processor [a connection
 - i. from the switch
 - ii. to the processor
 - iii. for each device in the teleconference call].

⁵
~~17.~~ (Amended after Final) The teleconferencing system of claim ¹~~15~~, wherein the system is further configured to:

- (a) detect,
 - (i) during a first teleconference [call] communication
 - (1) between users of first and second of the AV devices,
 - (ii) an attempt
 - (1) from a third user [of a third of the devices]
 - (2) to initiate a second teleconference communication
 - i. with the second user [of the second device],
- (b) notify
 - (i) the second user [of the second device]
 - (ii) of the attempt; and
- (c) allow
 - (i) the second user

USSN 08/659,952
COLB-001/09US

[(1) of the second device]

(ii) to add

(1) the third device

(2) to the first [teleconference call] communication.

3

2

~~18.~~ (Amended after Final) The teleconferencing system according to claim [17] ~~16~~, wherein the system [can accommodate] is configured:

(a) to detect[ing] and add[ing]

(i) a fourth AV device

(ii) to [the first] an existing teleconference [call] communication.

(b) by creating a call handle

(i) associated with each of the fourth device and with a fourth- device associated port at the signal processor.

4

2

~~19.~~ (Amended after Final) The teleconferencing system of claim [18] ~~16~~, wherein the system is further configured to

(a) allow any device user

(i) active in a teleconference [call] communication

(1) with at least one other device user,

(b) to do at least one of the group consisting of[:]

(i) place on hold,

(1) at least one of the other device users,

(2) by causing the system to change the state, of at least one call

handle associated with that other device user, from an active to a hold state.

(ii) disconnect

(1) at least one of the other users; and

USSN 08/659,952
COLB-001/09US

- (iii) select
 - (2) a new user
 - i. from among a plurality of potential users and
 - (3) add the new user
 - i. to an active teleconference [call] communication.
 - ii. by causing the system to generate at least one call handle associated with that new user.

6 /
20. (Amended after Final) The teleconferencing system of claim 15, wherein the system can

- E
- (a) support a maximum number of N [calls] communications
 - (i) for an AV device; and
 - (b) enable a user,
 - (i) operating that device,
 - (ii) to select N of M possible [calls] communications,
 - (iii) when faced with M possible [calls] communications.
- (1) where M is greater than N.

21. (Amended after Final) A teleconferencing system comprising:

- (a) at least three AV devices, each capable of
 - (i) originating and reproducing
 - (ii) user audio and video related signals; and
- (b) at least one communication path;
 - (i) arranged for transport
 - (1) of audio and video signals, [
 - (2) between the AV devices,]
 - (ii) to define a teleconference call
 - (1) [between] among the device users,

USSN 08/659,952
COLB-001/09US

(2) in which user audio and video is displayed at a device,
wherein the system is configured to

- (i) allow a user
 - (1) of any of the devices
 - (2) active in a teleconference call
 - i. with other users,
- (ii) to do at least one of the group consisting of:
 - (1) place on hold,
 - i. at least one of the other users; and
 - (2) disconnect
 - i. at least one of the other users.

22. (Amended after Final) A method of conducting a teleconferenc[ing]e using a system including:

a plurality of AV devices, each capable of

originating and reproducing

audio and video signals,

a plurality of communications ports each supporting

at least one of the group of switch connections consisting of

video in, video out, audio in and audio out; and

at least one communication path

arranged for transport of audio and video signals,

[between the AV devices,

by way of at least one port,

associated with each device],

the method comprising the steps of

- (a) controlling communication[s] connections

USSN 08/659,952
COLB-001/09US

- (i) between [users] two of the AV devices,
- (ii) over the communication path,
- (b) by [generating] creating,
- (i) as a result of a call request,
- (ii) at least [one] a first call handle,
- (1) [to define each connection between an] associated with one of the
two AV devices [and its associated port] and, thereafter,
- (iii) at least a second call handle
- (1) associated with the other AV device,
- (iv) each call handle defining [the],
- (1) for its respective AV device,
- (2) a call state [between the respective device, and port
- i. the state] being at least one of the group consisting of [idle, ringing,] active and hold states, and
- (3) the port switch connections involved in the communications connection[
- (c) establishing communications
- (i) between devices
- (ii) based on the relevant call handles' states].

12

~~23.~~ (Amended after Final) The method according to claim ^{//}22, wherein

the system further includes

[a switch; and]

at least one signal processor and

USSN 08/659,952
COLB-001/09US

wherein, in controlling communication connections between three or more AV devices, the method further comprises the steps of

(a) generating a plurality of call handles, [to define]

(i) [a connection

(1) from] one associated with each of the three or more AV devices [in

the teleconference call

(2) to the switch] and

(ii) one associated with each of the three or more ports on the signal processor

[a connection

(1) from the switch

(2) to the processor

(3) for each device in the teleconference call].

¹⁴
~~24~~ (Amended after Final) The method of claim ¹¹~~22~~, wherein the method further comprises the steps of:

(a) detecting,

(i) during a first teleconference [call] communication

(1) between [a] first and second [of the] AV device users,

(ii) an attempt

(1) by a third user

(2) to initiate a second teleconference [call] communication

(3) [to] with the second user,

(b) notifying

(i) the second user

(ii) of the attempt; and

USSN 08/659,952
COLB-001/09US

- (c) allowing
 - (i) the second user
 - (ii) to add
 - (1) the third caller
 - (2) to the first teleconference [call] communication.

¹³
~~25~~. (Amended after Final) The method of claim ¹²~~23~~, further comprising the steps of:

- (a) detecting and adding
 - (i) a fourth user
 - (ii) to [the] an existing teleconference [call] communication
- (b) by creating a call handle

^E
(i) associated with each of the fourth device with a fourth-device associated port at the signal processor.

¹⁵
~~26~~. (Amended after Final) The method of claim ¹¹~~22~~, further comprising the steps of

- (a) allowing any device user
 - (i) active in a teleconference [call] communication
 - (1) with at least one other user,
 - (ii) to do at least one of the group consisting of:
 - (1) place on hold,
 - i. at least one of the other device users;
 - ii. by causing the system to change the state, of at least one call handle associated with that other user(s), from active to hold;
 - (2) disconnect
 - i. at least one of the other users; and
 - (3) select
 - i. a new user
 - i. from among a plurality of potential users and

USSN 08/659,952
COLB-001/09US

- ii. add the new user
 - i. to an active teleconference [call] communication.
- iii. by causing the system to generate at least one call handle associated with that new user.

¹⁶ 27. (Amended after Final) The method of claim ¹¹ 22, wherein the system can support a maximum number of N [calls] communications for an AV device;

the method further comprising the steps of:

- (a) enabling a user,
 - (i) operating that device,
- (b) to select N of M possible [calls] communications,
 - (i) when faced with M possible [calls] communications
 - (I) where M is greater than N.

28. (Amended After Final) A method of conducting a teleconference using a system including

at least three AV devices, each capable of
 originating and reproducing
 user audio and video related signals; and
 at least one communication path;
 arranged for transport
 of audio and video signals,
 [between] among the AV devices,
 to define a teleconference call
 [between] among the device users,

USSN 08/659,952
COLB-001/09US

in which user audio and video is displayed at a device,
the method comprising the steps of

- (a) allowing a user
 - (i) of any of the devices
 - (ii) active in a teleconference call
 - (1) with other users,
- (b) to do at least one of the group consisting of:
 - (i) place on hold,
 - (1) at least one of the other users; and
 - (ii) disconnect
 - (1) at least one of the other users.

Please add the following new claims:

7 ~~29.~~ The teleconferencing system according to claim ~~15~~¹, wherein

(a) the call handle is created immediately prior to the communication connection being established.

8 ~~30.~~ The teleconferencing system according to claim ~~15~~¹, wherein

(a) the communication connection

(i) becomes active if, and only if, both call handles associated with the two

AV devices have active states; and

(ii) goes on hold if the call handle associated with either of the two AV devices has a hold state.

9 ~~31.~~ The teleconferencing system according to claim ~~15~~¹, wherein

(a) any call handle includes

USSN 08/659,952
COLB-001/09US

- (i) address information associated with the communication connection.

¹⁰
~~32.~~ The teleconferencing system of claim ¹~~15~~, wherein

- (a) each call handle can also define a state of one of the group consisting of

- (i) idle and ringing states.

¹⁷
~~33.~~ The method according to claim ¹¹~~22~~, wherein

- E*
(a) the call handle is created immediately prior to the communication connection being established.

¹⁸
~~34.~~ The teleconferencing system according to claim ¹¹~~22~~, wherein

- (a) the communication connection

- (i) becomes active if, and only if, both call handles associated with the two AV devices have active states; and

- (ii) goes on hold if the call handle associated with either of the two AV devices has a hold state.

¹⁹
~~35.~~ The method according to claim ¹¹~~22~~, wherein

- (a) any call handle includes

- (i) address information associated with the communication connection.

²⁰
~~36.~~ The method of claim ¹¹~~22~~, wherein

- (a) each call handle can also define a state of one of the group consisting of